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A Taxonomic Study of the Genus *Streblocera* Westwood from Korea (Hymenoptera, Braconidae, Euphorinae)

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Abstract Eight species of the genus *Streblocera* Westwood are recognized from Korea. Three species are described as new, and four species are reported for the first time from Korea. A key to the species of Korean *Streblocera* is given with figures.

Key words Taxonomy, Braconidae, Euphorinae, *Streblocera*, key, Korea

INTRODUCTION

Streblocera Westwood is a cosmopolitan braconid genus belong to the subfamily Euphorinae. The genus comprises more than 70 species throughout the world. This genus has typical characters named as 'ophionoid facies' (Gauld and Huddleston, 1976; Maetô, 1980; Huddleston and Gauld, 1988). Almost of their hosts have been unknown except two species as follows: *S. okadai* Watanabe is known as a solitary endoparasitoid of chrysomelid, *Medythia nigrobilineata* (Motschulsky), its mature larva emerges from the adult of the host (Maetô and Nagai, 1985; Watanabe, 1942b), and *S. fulviceps* is a parasitoid of *Chaetocnema cilindrica* Baly (Coleoptera: Chrysomelidae) (He, 1984).

The genus was first revised by Watanabe (1942a), and then De Saeger (1946) described for the Ethiopian species. Čapek and Šnoflák (1959) reviewed for the European species, and Shenefelt (1969) cataloged for the worldwide species. Thirteen new species were described from China (Wang, 1981, 1982, 1986; Wang, 1983a, 1983b, 1984; You et al., 1988), and Jakimavičus (1973) added a new species from Lithuania. Recently Belokobylskij (1987) studied on 11 species including six new species from Far east Russia, and Chou (1990) described 27 new species from Taiwan. Shaw (1985) discussed on the phylogeny of this genus, and Belokobylskij (1987) divided this genus into three subgenera based on his morphological data. For the Korean species of the genus, Papp (1985) described two species, *S. villosa* Papp and *S. devellata* Papp, from North Korea. Most of the examined specimens in this study were collected by mercury light trap (BioQuip products, 175W) excepting two specimens collected by sweep net from forest area, which implied that these species apparently have nocturnal habit. In the present study, eight species are recognized, of them three are new to science and four are new to the

fauna of Korea. A key to the Korean species of *Streblocera* is also given.

All the materials studied are deposited in the insect collection of National Institute of Agricultural Science and Technology (NIAST), Rural Development Administration, Suwon, Korea. The terminology and measurements used in this paper follows the suggestions of van Achterberg (1979, 1988, 1993).

SYSTEMATICS

Genus *Streblocera* Westwood, 1833

Streblocera Westwood, 1833. Philos. Mag. 3: 342; Watanabe, 1942. Ins. Mats. 16(1): 1; de Saeger, 1946. Explor. Parc. Natl. Albert Miss. G. F. de Witte 50: 144; Shenefelt, 1969. Hym. Catalogus 4: 125; Shaw, 1985. Entomography 3: 337; Belokobylskij, 1987. Ent. Obozr. 66(1): 161; Belokobylskij, 1988. Ent. Rev. 67(1): 3; Chou, 1990. J. Taiwan Mus. 43(2): 90. [Type species: *Streblocera fulviceps* Westwood], Monotypic.

Eutanycerus Foerster, 1862. Verh. Naturh. Ver. Preuss. Rheinl. 19: 251. [Type species: *Eutanycerus halidayanus* Foerster], Syn. by Dalla Torre, 1898.

Lecythodella Enderlein, 1912. Arch. Naturgesch. 78: 41. [Type species: *Lecythodella garleppi* Enderlein], Syn. by Musebeck, 1936.

Cosmophoridia Hedqvist, 1955. Ent. Tidskr. 76: 93. [Type species: *Cosmophorus flaviceps* Marshall], Syn. by Čapek and Šnoflák, 1959.

Diagnosis: Head transverse; face with or without process; occipital carina usually complete, rarely effaced dorso-medially. Female antenna raptorial; scapus usually long and incrassate, 2-10 times as long as wide, with tooth or carina, or without this structure; one or more basal flagellar segments usually with toothlike process. Antennal scrobes protuberant. Malar space considerably shoter than eye height. Eyes large and usually strongly protuberant. Middle lobe of mesoscutum long; notauli and precoxal sulcus almost crenulate. Propodeum carinated, usually rugose posteriorly, more or less smooth anterolaterally. Veins 1-SR+M and r-m of fore wing absent. Abdomen usually weakly or strongly compressed laterally; dorsope present. Male antenna not raptorial. Legs long and slender. Body color usually pale yellow to yellowish-brown.

Key to Korean species of the genus *Streblocera*

1. Ovipositor very short, slightly extending beyond apex of metasoma (figs 6, 14, 21) 2
- Ovipositor considerably longer, extending far beyond apex of metasoma (figs 22, 29) 5
2. Fifth sternite with a pair of recurved spinules ventrally (fig. 40); face with a distinct hornlike process medially, straight and acute (fig. 39) ..... *dayuensis* Wang
- Fifth sternite without pair of recurved spinules (fig. 6); face with or without hornlike process medially (figs 6, 12, 17) 3
3. Face with a distinct hornlike process, blunt at apex (figs 6, 7); ovipositor broader (fig. 4), more or less

membranous; flagellum geniculated at 1st flagellar segment, lanceolate (figs 1-3); scapus stout and strongly incrassate (fig. 1) ..... *moholeei* sp. nov.

- Face without hornlike process; ovipositor flat or acute (figs 8, 20), sclerotized; flagellum geniculated at 1st or 5th flagellar segment (figs 13, 21); scapus slightly incrassate and long 4

4. Flagellum geniculated at 1st flagellar segment (figs 13, 14), all flagellar segments articulated movably; apical margin of clypeus with a pair of teeth pointing outwards (fig. 9) ..... *silvicola* sp. nov.

- Flagellum geniculated at 5th flagellar segment (fig. 21), basal flagellar segments more or less joined immovably each other (figs 15, 16); apical margin of clypeus without tooth (fig. 17) ..... *nocturnalis* sp. nov.

5. Flagellum not geniculated (fig. 29) ..... *flaviceps* Marshall

- Flagellum geniculated (figs 22, 26, 30, 33, 36) 6

6. Flagellum geniculated at 5th flagellar segment (fig. 30) 7

- Flagellum geniculated at 7th or 8th flagellar segment (figs 26, 33) 8

7. Face and clypeus covered with tomentose hairs directed from middle line toward compound eyes (fig. 31); antenna 21-22 segmented, scapus without spine, flagellar segments 1st to 5th more or less immovably joined from each other, 1st flagellar segment slightly longer than its width, 2nd to 4th flagellar segments cubic, 5th flagellar segment pointed sharply and geniculated on its oblique-truncate side (fig. 30); body length 2.8~3mm ..... *villosa* Papp

- Face and clypeus without tomentose hairs, usually pubsence; antenna 25 segmented, scapus without spine, 1st flagellar segment distinctly 3 times longer than its width, 5th flagellar segment produced into spiniform and geniculated on its oblique-truncate side; body length 4mm ..... *develiata* Papp

8. Flagellum geniculated at 7th flagellar segment (fig. 33); scapus with a spine at its proximal third (fig. 33); apical margin of clypeus without distinct tubercles ..... *okadai* Watanabe

- Flagellum geniculated at 8th flagellar segment (figs 22, 26); scapus without spine; apical margin of clypeus with a pair of tubercles laterally (fig. 24) ..... *octaba* Chou

Subgenus *Asiastreblocera* Belokobylskij, 1987

Asiastreblocera Belokobylskij, 1987. Ent. Obozr. 66(1): 161; Belokobylskij, 1988. Ent. Rev. 67(1): 3; Chou, 1990. J. Taiwan Mus. 43(2): 93. [Type species: *Streblocera cornuta* Chao].

Diagnosis. Head transverse; face with hornlike process medially; scapus long, without horn; first flagellum long, lanceolate, slightly flattened; 2nd flagellum joined to 1st flagellum at about middle; flagellum geniculated at first flagellum, all segments movably articulated to each other. Fifth sternite with or without spinules ventrally. Ovipositor very short, hardly extending beyond apex of metasoma.

Streblocera (Asiastreblocera) dayuensis Wang, 1983

(Figs 36-40)

Streblocera dayuensis Wang, 1983: 231.
Streblocera (Asiastreblocera) dayuensis: Belokobylskij, 1988: 7; Chou, 1990: 93.

Female: Antenna 17 segmented. Flagellum geniculated at first flagellar segment, lanceolate. scapus without spine and more or less incrassate. Length of eye in dorsal view about twice longer than temple. Frons smooth, setose laterally. Occipital carina complete. Face with a distinct hornlike process medially, straight and acute, about equal as high as width in frontal view. Face and clypeus pubescent. Malar space very short. Mesoscutum smooth; notauli slightly crenulate. Mesopleuron smooth; precoxal sulcus crenulate. Propodeum smooth anteriorly, rugose posteriorly; median longitudinal and transverse carinae well developed. First metasomal tergite striated; about twice as long as wide apically. Fifth sternite with a pair of recurved spinules ventrally. Ovipositor very short, slightly extending beyond apex of metasoma.

Male: Unknown.

Material examined. 2♀, Chojeon, Chinju, Kyongnam, 19-20. VIII. 1993 (D.S. Ku), at mercury lamp; 1♀, same data, 12-13. VIII. 1993 (D.S. Ku); 1♀, Mt. Chiak, Wonju, Kangwon, 3-4. VIII. 1995 (D.S. Ku), at mercury lamp.

Distribution. Korea, China, Taiwan, Russia (Maritime Territory).

Remarks. This species is recorded for the first time from Korea. Host is unknown.

Streblocera (Asiastreblocera) moholeei Ku, sp. nov.

(Figs 1-7)

Female: Body length 2.6~2.7mm, antenna 2.7mm, fore wing 2.6mm, ovipositor sheath 0.15mm.

Head- Antenna 18 segmented. Scapus strongly incrassate, without horn, about 3.2-3.5 times as long as its maximal width, with about ten transverse short carina ventrally. Flagellum geniculated at first flagellar segment, lanceolate, slightly flattened; 1st flagellum joined to 2nd flagellum at about its middle; all segments movably articulated to each other. First flagellum 6.4~6.6 times longer than 2nd flagellum; length of 2nd and penultimate flagellar segments 1.3 and 1.2~1.3 times of their width. Relative length of three sections of antenna as 1 (scapus): 1.0~1.2 (pedicel and 1st flagellum): 1.5~1.6 (2nd flagellar segment to apex). Head in dorsal view transverse, 1.5 times wider than mesonotum; temple round posteriorly; eye about 3 times longer than temple. Frons smooth, setose laterally. Ocelli small. OOL: diameter of ocellus: POL=3.0-3.3: 1: 1.4-1.5. Vertex smooth. Occipital carina complete. Eyes protuberant, glabrous. Face with a distinct hornlike process medially, blunt at apex, 0.8 times height than its width in frontal view. Malar space 0.15 times of eye height. Face and clypeus setose. Clypeus without tooth along lower margin.

Mesosoma- Pronotum protuberant, smooth dorsally; side of prontum smooth. Mesosoma 1.6 times as long as high in lateral view. Mesoscutum smooth; notauli slightly depressed; scutellar sulcus with a

longitudinal median carina. Mesopleuron smooth; precoxal sulcus slightly crenulate. Propodeum smooth anteriorly and rugose posteriorly, mainly smooth; medial and lateral carina developed, transverse median carina developed; posterior part of metapleuron faintly rugose. Forewing 2.8 times and stigma 3.3 times longer than their width, respectively; vein 1-R1 0.7 times as long as stigma; vein r 0.4 times longer than stigma width. Wing membrane setose. Femur, tibia and basitarsus of hindleg 4, 14 and 7 times longer than their width; hind tibia 2.6 times longer than basitarsus.

Metasoma- First tergite mostly smooth, slightly striate posterolaterally; constricted its proximal third; apical margin setose; about twice longer than apical width; dorsope dictinct. Fifth sternite without spinule ventrally. Ovipositor flat and broader, more or less membranous; slightly extending beyond apex of metasoma. Ovipositor sheath 0.4 times as long as hind basitarsus.

Color- Yellow: first metasomal tergite yellowish brown; ovipositor sheath brown; all coxae and trochantelli ivory.

Male: Unknown.

Types. Holotype: ♀ (NIAST), Chojeon, Chinju, Kyongnam, 16-17. VII. 1993 (D.S. Ku), at mercury lamp. Paratypes, 4♀ (NIAST): 2♀, same data as holotype; 1♀, same data as holotype, 19-20. VII. 1995; 1♀, Dundeok, Koje, Kyongnam, 19-20. VII. 1995 (D.S. Ku), at mercury lamp.

Distribution. Korea.

Remarks. This species is close to *dayuensis* Wang and *cornuta* Chao, but it is distinguished from them by the fifth sternite of metasoma without ventral spinule, scapus strongly incrassated, and face with a hornlike process blunted at apex. Host is unknown.

Etymology. The author dedicate this species to the memory of the recently retired from a Chief of Division of Overseas Pest, Dr. Moon-Hong Lee, a prescient, honorable and generous insect ecologist.

Subgenus *Streblocera* Westwood, 1833

Streblocera Westwood, 1833. Philos. Mag. & J. Sci. 3:342; Belokobylskij, 1987. Ent. Obozr. 66(1): 161; Belokobylskij, 1988. Ent. Rev. 67(1): 3; Chou, 1990. J. Taiwan Mus. 43(2): 106.[Type species: *Streblocera fulviceps* Westwood].

Diagnosis. Head transverse; face without hornlike process medially; scapus with or without horn near base; flagellum geniculated at first flagellum, all segments articulated movably. Fifth sternite without spinule ventrally. Ovipositor flat, broadened, appressed to hind margin of metasoma, hardly extending beyond it.

Streblocera (*Streblocera*) *silvicola* Ku, sp. nov.

(Figs 8-14)

Female: Body length 1.7mm, antenna 1.6mm, fore wing 1.9mm, ovipositor sheath 0.15 mm.

Head- Antenna 16 segmented. Scapus slightly incrassate, without horn, 4 times as long as its maximal

width and densely setose ventrally. Flagellum geniculated at first flagellar segment; 1st flagellum produced into a hook-like prominence ventrally at apex, with a small tubercle ventromedially and without sensillum; 2nd and 3rd flagellar segments with two sensilla, respectively. First flagellum 1.7 times longer than 2nd flagellum; 1st, 2nd, and penultimate flagellar segments 2.6, 1.3, and 1.7 times longer than their width, respectively. Apical segment slightly fused with penultimate segment. Relative length of three sections of antenna as 1 (scapus): 0.7 (pedicel and 1st flagellum): 3 (2nd flagellar segment to apex). Head transverse in dorsal view, 1.3 times wider than mesonotum; temple round posteriorly; eye 1.5 times longer than temple. Frons smooth, convex and sparsely setose along eye. Ocelli small and round. OOL: diameter of ocellus: POL=5 : 1 : 4. Vertex smooth. Occipital carina complete. Eyes protuberant, glabrous. Face without process medially, 0.5 times as high as its width in frontal view. Malar space 0.9 times of basal width of mandible and 0.3 times of eye height. Face and clypeus pubescent. Clypeus with a pair of sharp teeth pointing outwards along lower margin.

Mesosoma- Pronotum strongly protuberant, rugose-punctate dorsally; side of prontum crenulate medially. Mesosoma 1.6 times as long as height in lateral view. Mesoscutum smooth; notauli long and crenulate; scutellar sulcus with a longitudinal median carina. Mesopleuron smooth; precoxal sulcus slightly areolate; epicnemial area slightly rugose. Propodeum smooth anteriorly and rugose posteriorly; median and transverse carina developed, lateral longitudinal carina developed; posterior part of metapleuron rugose. Forewing 2.9 times and stigma 3.1 times longer than their width, respectively; vein 1-R1 0.5 times as long as stigma; vein r 0.3 times as long as stigma width. Wing membrane setose. Femur, tibia and basitarsus of hindleg 6.3, 11 and 6.6 times longer than their width, respectively; hind tibia 2.8 times longer than basitarsus.

Metasoma- First tergite with a median longitudinal carina, mostly smooth; 2.1 times longer than apical width; dorsope dictinct. Fifth sternite without spinule ventrally. Ovipositor flat and broader; with internal combs in dorsal view; slightly extending beyond apex of metasoma. Ovipositor sheath 0.5 times as long as hind basitarsus.

Color- Rufous: scapus and pedicellus yellow; face pale yellow; side of pronotum yellow; all legs yellow except telotarsus infuscate; palpi and ovipositor sheaths ivory; 1st metasomal tergite and sternites yellowish brown; vein of fore wing mainly brown except stigma ivory at base.

Male: Unknown.

Types. Holotype: ♀, Mt. Namdokyoo, Hamyang, Kyongnam, 16. VI. 1992 (D.S. Ku), at forest, housed in NIAST.

Distribution. Korea.

Remarks. This species is close to *S. tayulingensis* Chou, 1990, but differs from it by the ventral teeth of clypeus produced outwardly and the ventral surface of first flagellum with a small tubercle medially.

Etymology. This specific name is derived from Latin silva (=forest), from which specimen were collected.

Subgenus *Cosmophoridia* Hedqvist, 1955

Cosmophoridia Hedqvist, 1955. Ent. Tidskr. 76: 93; Belokobylskij, 1987. Ent. Obozr. 66(1): 161; Belokobylskij, 1988. Ent. Rev. 67(1): 3; Chou, 1990. J. Taiwan Mus. 43(2): 93. [Type species: *Cosmophorus flaviceps* Marshall].

Diagnosis. Head more or less transverse; face without hornlike process medially; scapus with or without horn near base; flagellum not geniculated, all segments movably articulated to each other; or flagellum geniculated at fifth, or sixth, or seventh, or eighth flagellum, basal segments more or less immovably joined from each other. Fifth sternite without spinule. Ovipositor usually projecting far beyond apex of metasoma, rarely (*S. nocturnalis* sp. nov.) hardly extending at apex of metasoma.

Streblocera (*Cosmophoridia*) *devellata* Papp, 1985

Streblocera devellata Papp, 1985: 350.
Streblocera (*Cosmophoridia*) *devellata*: Belokobylskij, 1988: 3.

This species was previously reported from Mt. Mohyang-san, N. Korea by Papp (1985), which was described as a new species. No specimen has been found during this study in Korea.

Distribution. Korea (North).

Streblocera (*Cosmophoridia*) *flaviceps* Marshall, 1898

(Figs 27-29)

Cosmophorus flaviceps Marshall, 1898: 208.
Cosmophoridia flaviceps: Hedqvist, 1955: 93.
Streblocera flaviceps: Čapek and Šnoflák, 1959: 352; Shenefelt, 1969: 127; Papp, 1985: 353; Tobias, 1995: 413.
Streblocera (*Cosmophoridia*) *flaviceps*: Belokobylskij, 1988: 10.

Diagnosis. This species is characterized by its non-geniculated flagellum in female, 2nd to 7th flagellar segments with basal tubercles ventrally, frons behind of antennae striate, and occipital carina effaced dorsally. The examined specimen from Korea with a variation of vein SR1+3-SR of right forewing as shown in fig. 29, but leftwing normal. It is reported for the first time from Korea.

Material examined. 1 ♀, Mt. Unak, Pochon, Kyonggi-do, 14. VI. 1992 (D.S. Ku).

Distribution. Korea, Austria, Germany, Russia (Maritime Terr.).

Streblocera (*Cosmophoridia*) *nocturnalis* Ku, sp. nov.

(Figs 15-21)

Female: Body length 4.8mm, antenna 4.6mm, fore wing 4.5mm, ovipositor sheath 0.2mm.

Head- Antenna 27 segmented. Scapus long and incrassate, without horn, 6 times as long as its maximal width. Flagellum geniculated at fifth flagellar segment; apex of 2nd, 3rd, 4th and 5th flagellar segments with a weakly sclerotized carina in ventral view; 5th flagellum produced into a hook-like prominence ventrally at apex. First flagellum about 1.4 times longer than 2nd flagellum and 0.8 times as long as pedicel; 1st, 2nd, and penultimate flagellar segments 1.8, 1.5, and 1.4 times longer than their width, respectively. Relative length of three sections of antenna as 1 (scapus): 0.7 (pedicel to 5th flagellum): 1.5 (6th flagellar segment to apex). Head transverse in dorsal view, 1.4 times wider than mesonotum; temple round posteriorly; eye 2.0 times longer than temple. Frons smooth, sparsely setose laterally. OOL: diameter of ocellus: POL=1.4 : 1 : 1.2. Vertex smooth. Occipital carina complete. Eyes strongly protuberant, glabrous. Face without process medially, 0.8 times as high as its width in frontal view. Malar space 0.5 times of basal width of mandible and 0.15 times of eye height. Face and clypeus pubescent. Clypeus without tubercle along lower margin.

Mesosoma - Pronotum strongly protuberant, smooth dorsally; side of pronotum faintly crenulate medially. Mesosoma 1.8 times as long as high in lateral view. Mesoscutum smooth; notauli faintly crenulate; middle lobe almost glabrous; scutellar sulcus with a longitudinal median carina. Mesopleuron smooth; precoxal sulcus slightly crenulate. Propodeum smooth anteriorly with a longitudinal median carina and reticulate-rugose posteriorly; lateral carina developed; posterior part of metapleuron rugose. Forewing 2.8 times and stigma 3.1 times longer than their width, respectively; vein 1-R1 0.7 times as long as stigma; vein r 0.3 times as long as stigma width. Wing membrane setose. Femur, tibia and basitarsus of hindleg 7.0, 12.2, and 8.3 times longer than their width, respectively; hind tibia 2.6 times longer than basitarsus.

Metasoma- Abdomen not compressed laterally. First tergite mostly smooth, not sharply constricted; with a few longitudinal rugae laterally and some indistinct rugae apically; 2.1 times longer than apical width; dorsope indictinct. Fifth sternite without spinule ventrally. Ovipositor strongly acute at apex in dorsal view; slightly extending beyond apex of metasoma. Ovipositor sheath 0.3 times as long as hind basitarsus.

Color. Yellow: 1st to 4th flagellar segments black at apex; stemmaticum, ovipositor sheaths and eyes black; mandible at apex and propodeum rufous, 6th to apex flagellar segments and first metasomal tergite yellowish brown; palpi ivory.

Male: Unknown.

Types. Holotype: ♀, Mt. Chiri, Simwon, Kurye, Chonnam, 30-31. VII. 1992 (D.S. Ku), at mercury lamp, housed in NIAST.

Distribution. Korea.

Remarks. This species is closely resemble to *S. quinaria* Chou, 1990, but can be characterized by its short ovipositor. Most species of the subgenus *Cosmophoridia* Hedqvist has a long ovipositor, but this species has very short one and its shape very aberrant. At present study, though I tentatively placed the

species in this subgenus, a further study is needed for the subgeneric status.

Etymology. The species name is derived from its nocturnal habit.

Streblocera (Cosmophoridia) octaba Chou, 1990

(Figs 22-26)

Streblocera (Cosmophoridia) octaba Chou, 1990: 99.

Diagnosis. This species is characterized by followings: flagellum of female geniculated at 8th flagellar segment; antenna 19 segmented; apical margin of clypeus with a pair of tubercles laterally and occipital carina widely interrupted medially; notauli and precoxal sulcus crenulate; propodeum slightly smooth anteriorly and remainder rugose; first metasomal tergite striated, dorsope distinct; ovipositor long; and hind tibia about 2.4-3.1 times as long as basitarsus. It is reported for the first time from Korea.

Material examined. 2♀, Chojeon, Chinju, Kyongnam, 21-22. VI. 1995 (D.S. Ku), at mercury lamp; 1♀, same data, 30. VI. 1993.

Distribution. Korea, Taiwan.

Streblocera (Cosmophoridia) okadai Watanabe, 1942

(Figs 33-35)

Streblocera okadai Watanabe, 1942a: 10, 1942b: 158, 1951: 102; Chao, 1964: 154; Shenefelt, 1969: 128; Maetô and Nagai, 1985: 729; Papp, 1985: 353.

Streblocera (Cosmophoridia) okadai: Belokobylskij, 1988: 12; Chou, 1990: 100.

Diagnosis. This species is easily characterized by its scapus with a spine basally, flagellum geniculated at 7th flagellar segment, 6th and 7th flagellar segment with apical tubercles and 2nd to 6th flagellar segments with carinae ventrally, antenna 19-21 segmented, and frons behind of antennae striate, first metasomal tergite twice longer than broader at hind and ovipositor sheath as long as half hind tibia. It is reported for the first time from Korea.

Material examined. 1♀, Chojeon, Chinju, Kyongnam, 12-13. VIII. 1993 (D.S. Ku), at mercury lamp; 1♀, same data, 20. VII. 1995.

Distribution. Korea, China, Taiwan, Russia (Maritime Terr.).

Host. *Medythia nigrobilineata* (Motschulsky) (Coleoptera: Chrysomelidae) in Maetô and Nagai (1985) and Watanabe (1942b).

Streblocera (Cosmophoridia) villosa Papp, 1985

(Figs 30-32)

Streblocera villosa Papp, 1985: 352.
Streblocera (Cosmophoridia) villosa: Belokobylskij, 1988: 3.

Diagnosis. Papp (1985) has previously reported from Mt. Mohyang-san, N. Korea describing as a new species. This species is easily characterized by its face and clypeus with tomentose hairs, scapus without spine, flagellum geniculated at 5th flagellar segment, first metasomal tergite about 1.5~1.7 times longer than apical width and ovipositor sheath shorter than hind tibia.

Material examined. 17♀, Mt. Chiak, Wonju, Kangwon, 3-4. VIII. 1995 (D.S. Ku), at mercury lamp.

Distribution. Korea, Taiwan.

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한국産 *Streblocera*屬 (벌目, 고치벌科, 잎벌레고치벌亞科)의 분류학적 연구

具 德 書

農業科學技術院 海外病害蟲科

한국산 *Streblocera*속은 8종으로 정리되었다. 3종은 신종으로 기재하고, 4종은 한국 미기록종으로 보고되며, 1종은 미확인되었다. 한국산 *Streblocera*속에 대한 검색표를 작성하였다.

검색어 : 분류, 고치벌과, 잎벌레고치벌아과, *Streblocera*속, 검색표, 한국

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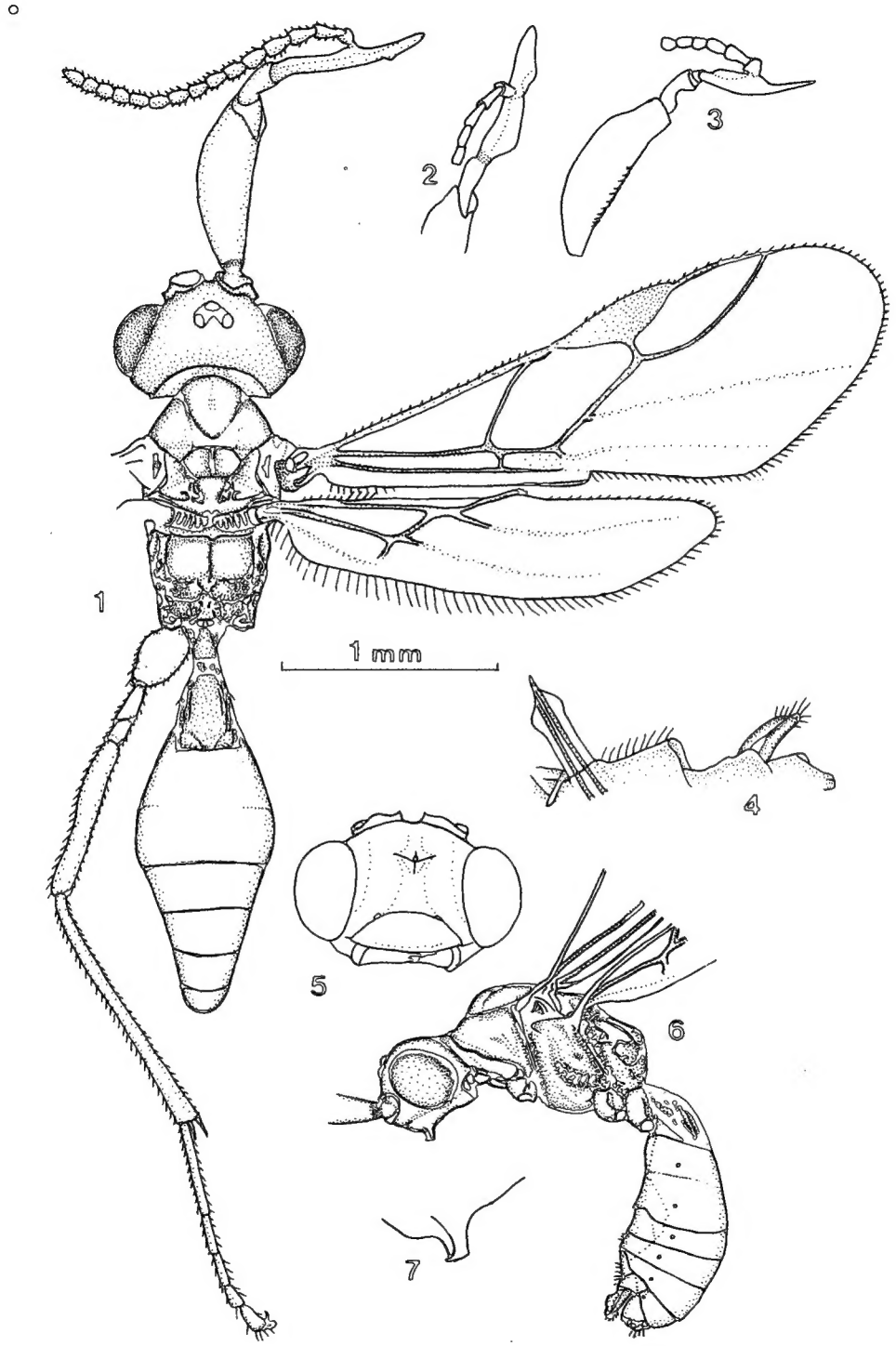
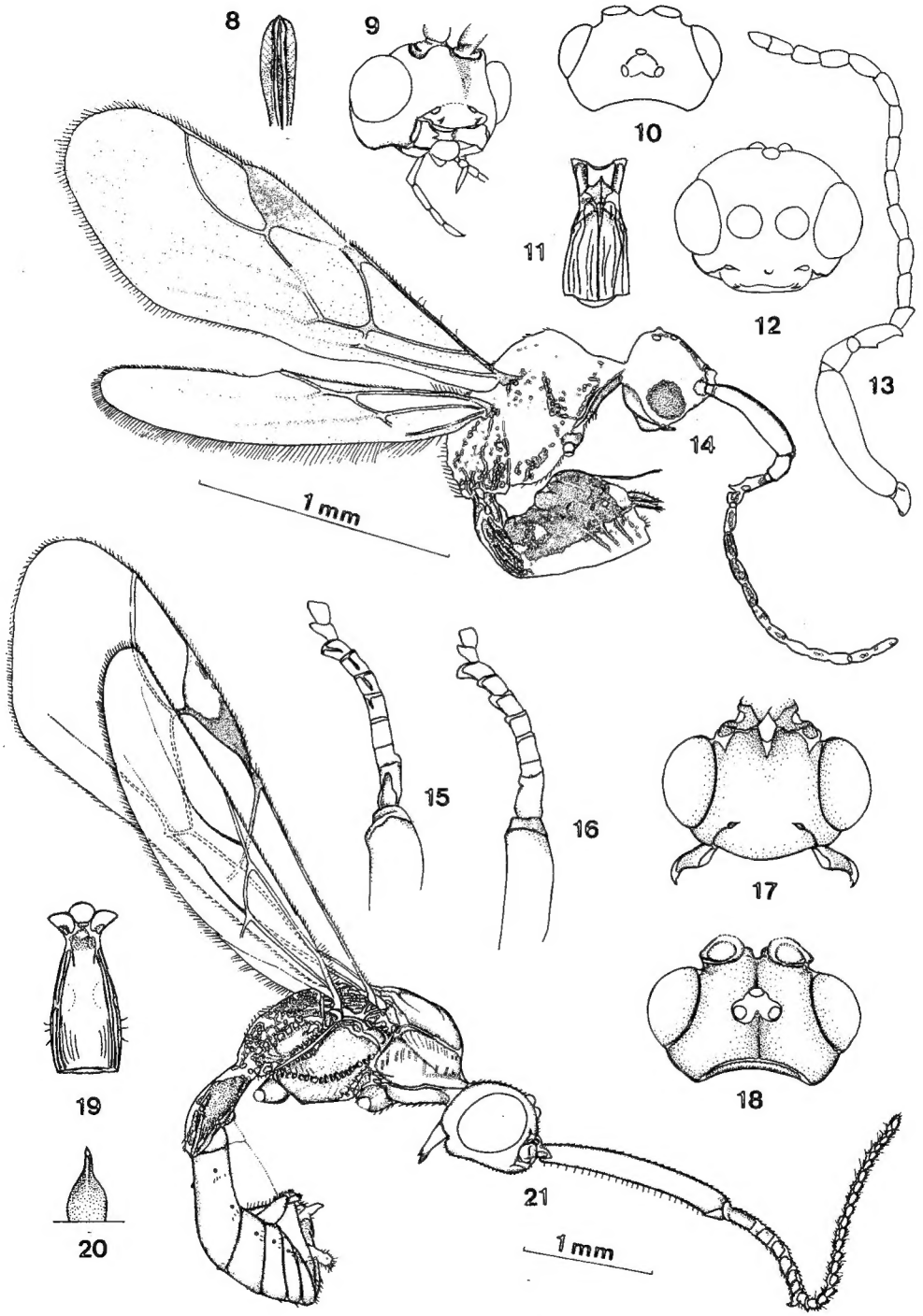
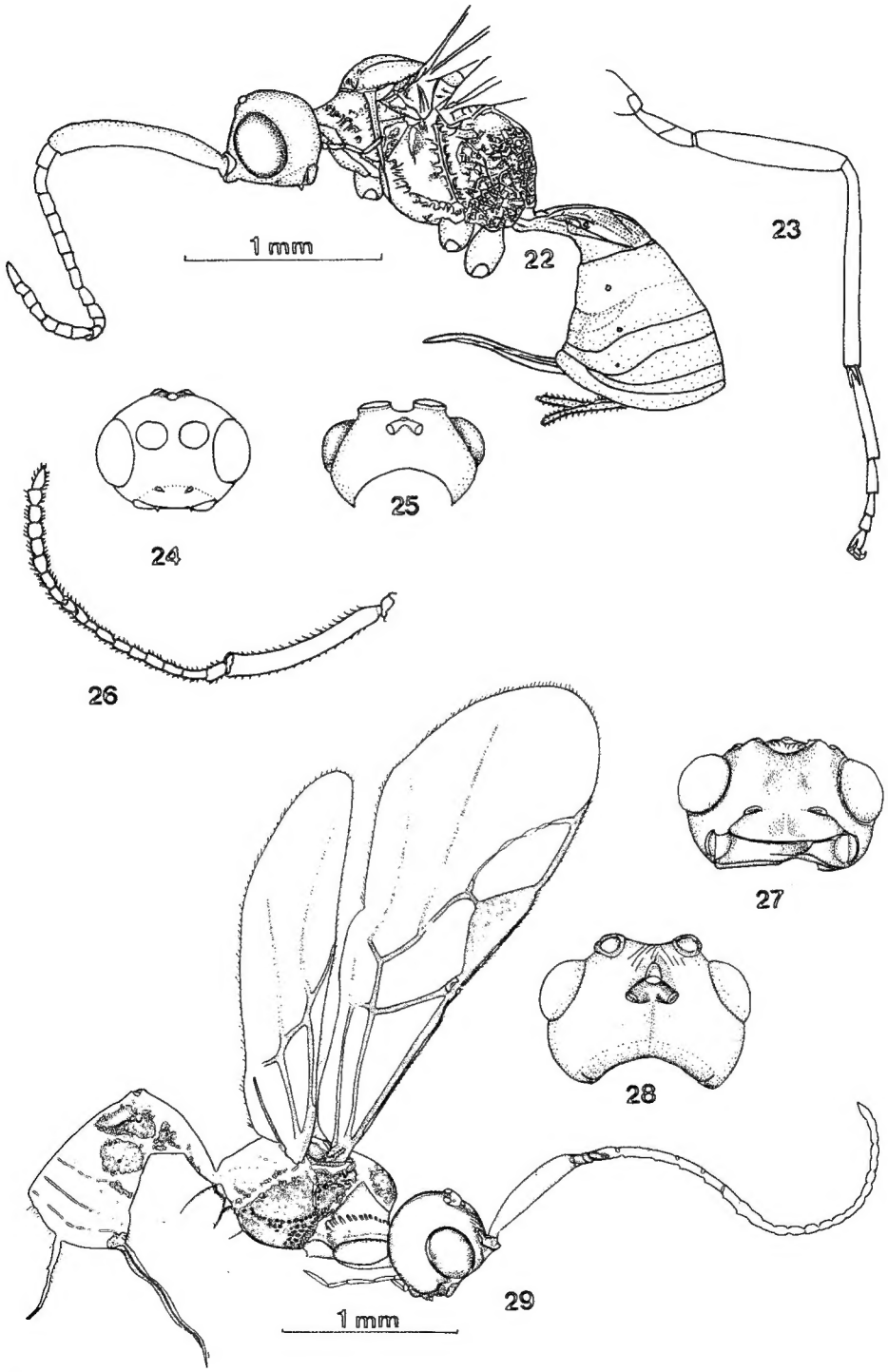


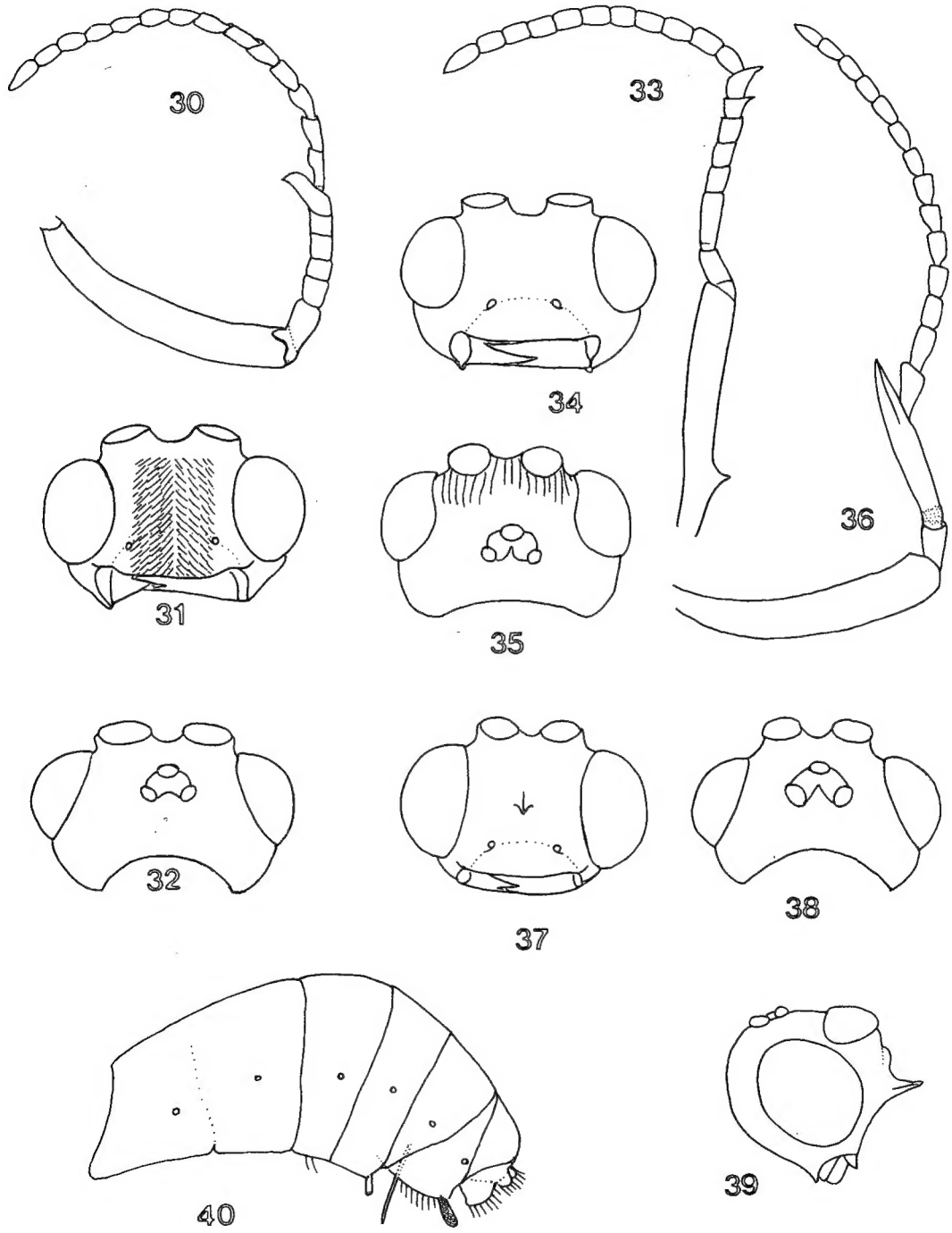
Figs 1-7. *Streblocera moholeei* sp. nov., Holotype, ♀. 1, habitus, dorsal view, 1× scale-line; 2, antenna, dorso-lateral view; 3, antenna, lateral view; 4, detail of ovipositor and ovipositor sheaths; 5, head, frontal view; 6, habitus, lateral view; 7, detail of a horn-like process of face in lateral view.



Figs 8-14. *Streblocera silvicola* sp. nov., Holotype, ♀; **figs 15-21.** *Streblocera nocturnalis* sp. nov., Holotype, ♀. 8, 20, detail of ovipositor, dorsal view; 9, head, oblique frontal view; 10, 18, head, dorsal view; 11, 19, first metasomal tergite; 12, 17, head, frontal view; 13, antenna, lateral view; 14, 21, habitus, lateral view, 1 × scale-line, respectively; 15, antenna, venteral view; 16, antenna, oblique lateral view.



Figs 22-26. *Streblocera octaba* Chou, ♀; **figs 27-29.** *Streblocera flaviceps* Marshall, ♀. 22, 29, habitus, lateral view, 1 × scale-line, respectively; 23, hindleg, lateral view; 24, 27, head, frontal view; 25, 28, head, dorsal view; 26, antenna, lateral view.



Figs 30-32. *Streblocera villosa* Papp, ♀; **figs 33-35.** *Streblocera okadai* Watanabe, ♀; **figs 36-40.** *Streblocera dayuensis* Wang, ♀. 30, 33, 36, antenna, lateral view; 31, 34, 37, head, frontal view; 32, 35, 38, head, dorsal view; 39, head, lateral view; 40, metasoma, lateral view.